

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization** International Bureau





(43) International Publication Date 13 May 2004 (13.05.2004)

PCT

(10) International Publication Number WO 2004/039932 A1

(51) International Patent Classification7: C11D 3/39, 3/16

(21) International Application Number:

PCT/GB2003/004625

(22) International Filing Date: 28 October 2003 (28.10.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0225240.1

30 October 2002 (30.10.2002) GB

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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

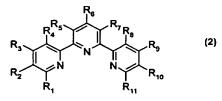
Published:

with international search report

[Continued on next page]

(54) Title: USE OF METAL COMPLEX COMPOUNDS AS OXIDATION CATALYSTS

 $[L_nMe_nX_p]^{z}Y_q$ (1)



(57) Abstract: An automatic dishwasher detergent formulation comprising: - (a) a metal complex compounds of formula (1) [$L_n Me_m, X_p$ Y_q wherein Me is manganese, titanium, iron, cobalt, nickel or copper, X is a co-ordinating or bridging radical, n and m are each independently of the other an integer having a value of from 1 to 8, p is an integer having a value of from 0 to 32, z is the charge of the metal complex, Y is a counter-ion, q = z / (charge Y), and L is a ligand of formula (2); wherein R₁, R₂, R₃, R_4 , R_5 , R_6 , R_7 , R_8 , R_9 , R_{10} and R_{11} are each independently of the others hydrogen; unsubstituted or substituted C_1 - C_{18} alkyl or aryl; $cyano; \ halogen; \ nitro; \ -COOR_{12} or \ -SO_3 R_{12} \ wherein \ R_{12} \ is \ in each \ case \ hydrogen, \ a \ cation \ or \ unsubstituted \ or \ substituted \ C_1-C_{18} alkylone \ a \ cation \ or \ unsubstituted \ or \ substituted \ or \ substituted$ or aryl; SR₁₃, -SO₂R₁₃ or -OR₁₃ wherein R₁₃ is in each case hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or aryl; -N(R₁₃) -NR' 13R' 13 wherein R13, R' 13 and R' 13 are as defined above for R13; -NR14NR15 or - NBR14R15R16 wherein R14, R15 and R16 are each independently of the other(s) hydrogen or unsubstituted or substituted C1-C18alkyl or aryl, or R14 and R15 together with the nitrogen atom bonding them from an unsubstituted or substituted 5-, 6- or 7-membered ring which may optionally contain further hetero atoms; with the proviso that R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉, R₁₀ and R₁₁ are not simultaneously hydrogen, as a catalyst for oxidation reactions; and (b) an enzyme.

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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